Early grasswren specimens in Muséum national d'Histoire naturelle, Paris, and the types of Western Grasswren *Amytornis textilis* (Maluridae)

by Andrew Black, Richard Schodde & Anne Préviato

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Summary.—The first described specimen of Western Grasswren *Amytornis textilis* was not lost at sea but reached the Muséum national d'Histoire naturelle in Paris, where it was written up by its collectors. Authorship has been attributed to Dumont, but examination of the circumstances reveals that Quoy and Gaimard were responsible for its name and published details. The specimen was checked again in MNHN in 1992, but is currently mislaid. It is shown to be one of three syntypes; the others were collected earlier by the Expédition Baudin in 1801 and 1803. One of three further *Amytornis* specimens in Paris represents a subspecies of Western Grasswren *A. t. myall* that was collected >30 years before the first published record of that form. Another is a Thick-billed Grasswren *A. modestus* probably of the extinct subspecies *inexpectatus*. The third, a Thick-billed Grasswren of the extinct nominate subspecies, is one of the first two specimens and was previously thought to have been lost.

It has been widely assumed that the specimen material from which the first known species of Australian grasswren was described, the Western Grasswren *Amytornis textilis*, had perished at sea (Whittell 1954, Schodde 1982, Rowley & Russell 1997, Black 2011a). Along with the first specimen of White-winged Fairy-wren *Malurus leucopterus* Dumont, 1824, from Dirk Hartog Island nearby, it was taken by the surgeon-naturalists J. R. C. Quoy and J. P. Gaimard at Shark Bay, Western Australia, in September 1818 on L. C. D. de Freycinet's *Voyage autour du Monde* in the corvette *L'Uranie*. The *Uranie* was wrecked in the Falkland Islands on the return to France, and much of the zoological material was lost. It included, according to Quoy & Gaimard (1824), probably 8–10 new species of Australian birds. Among them was the specimen of White-winged Fairy-wren (Dumont 1824) but no mention was made of the fate of any specimen of the 'Mérion natté' as these naturalists called the grasswren.

Quoy & Gaimard (1824) measured and figured the 'Mérion natté', presumably in the field just as they had the fairy-wren; and it was presumed to have been on that information alone that the grasswren was described by C. H. F. Dumont (Dumont 1824). In the original description, however, Dumont mentioned another specimen with a deformed bill in the 'Muséum de Paris' and one that was darker. Quoy & Gaimard (1824) did likewise in their account of the zoology of the voyage, and went further, noting that naturalists on the earlier French Expédition Baudin in 1801–03 had also recorded grasswrens, but without illustrating them. We reviewed the earliest writings on the species, and examined all available grasswrens in the Muséum national d'Histoire naturelle (MNHN), Paris, as well as related documentation to determine the material upon which the Western Grasswren was based and the authority for its name.

Results

The earliest descriptions.—Mathews (1917) showed that Amytornis textilis, as Malurus textilis, was first published by Dumont in vol. 30, p. 117 of the Dictionnaire des sciences naturelles. It appeared before 29 May 1824, several months in advance of its publication by Quoy & Gaimard on 28 August 1824 (description) and 18 September 1824 (plate) in the write-up of the zoological findings from de Freycinet's 1817–20 Voyage autour du monde (Quoy & Gaimard 1824). Since that time it has been presumed that Dumont is the author of Amytornis textilis. What Mathews appears not to have understood or to have made clear is that its name and that of the White-winged Fairy-wren, and their descriptive details, were furnished entirely by Quoy & Gaimard. Dumont, who worked in friendly collaboration with them (Mathews 1917), explicitly attributed both scientific names to them, quoted the figures of each species (albeit with the numbers transposed) from the forthcoming atlas (zoologie) of de Freycinet's Voyage, and took all of his descriptive data from Quoy & Gaimard's text in that work.

Aspects covering the appearance and habits of both species, even the grasswren with a deformed bill, are exactly the same in both Dumont's and Quoy & Gaimard's accounts. Many of the phrases and clauses are identical, even sentences. As examples, we quote 'La même disposition existe sur la tête, qui est un peu plus brune, et sur le dos, où chaque plume a une ligne dune blanc sale au milieu' under *Amytornis textilis* and 'les ailes sont blanches dans leur moitié antérieure, et brunâtres à leur extrémité' under *Malurus leucopterus*. There are differences in the order and wording of descriptive details, but the editorial requirements of the *Dictionnaire* appear to be responsible for this. Evidently all Dumont had done, as a compiler of avian sections for the *Dictionnaire*, was to copy across, with editorial amendment, Quoy & Gaimard's forthcoming accounts of the two new species so that he could complete his own review of the known species of 'Mérion' (Australian wrens) for the *Dictionnaire*. As acknowledged providers of both names and the substance of the descriptive text that makes those names available, Quoy & Gaimard are thus the correct authors of *Malurus textilis* and *M. leucopterus* under Art 50.1.1 of the *International code of zoological nomenclature* (ICZN 1999), hereafter the Code.

Whatever the fate of material of *Amytornis textilis* collected on the voyage of *L'Uranie*, it is clear from its original description in Dumont (1824), and in Quoy & Gaimard's (1824) subsequently published version in de Freycinet's *Voyage autour du monde*, that all authors had at least three specimens available to them in Paris. These specimens are (1) the specimen said to have a very sharp, hook-tipped maxilla, (2) another of darker plumage, and (3) the specimen described in some detail, more than could be expected from field notes, and apparently also figured as no. 1 on Pl. 23 of the zoological atlas of de Freycinet's *Voyage*. As was then current practice, no types were designated, and although it appears that *M. textilis* was described from just one specimen (the third), this is not specified and the text includes the others as examples of the species and basis for the name. Given that Quoy & Gaimard (1824) referred to at least two Expédition Baudin specimens in their account, they would have been before them when preparing their descriptions and would qualify as syntypic. We treat all three as syntypes, *cf.* Art. 72.1.1, 73.1.2, Recommendation 73F of the Code.

Catalogue of grasswrens (Amytornis) *in MNHN Paris.*—The Gallery Catalogue of mostly mounted specimens contains the following entries:

10695 *Amytis* [25-12, G3] *textilis* Less [added later, = Lesson] (type) (Quoy et Gaim) Nelle. Hollande Quoy et Gaimard 1820-157. Rapport au laboratoire.

10696 Amytis textilis (Quoy et Gaim). Mer du Sud. Exp de Baudin. Lessueur (sic) An 11.

10697 Amytis (macrourus) macrura (Gould). Nelle. Hollande. Péron et Lessueur (sic) An 12.

10697A Amytis striata (Gould) Australie Mérid. CG 1879-714.

10697B Autytis striata (Gould) Australie Mérid. CG 1879-715.

The Catalogue Général, which was intended to list all specimens in the collection, has the following entries:

1879-714 A. striatus don de Musée d'Adelaide GO 10697A—see above.

1879-715 A. striatus don de Musée d'Adelaide GO 10697B—see above.

1879-716 A. textilis don de Musée d'Adelaide HO 3.

1897-489 A. textilis HO 3.

Survey of specimens of grasswrens (Amytornis) in MNHN Paris.—The ensuing specimens and their details are identified by reference to their respective catalogue numbers above but named according to our present identification. Measurements of bill = length (total culmen to skull insertion) × depth (at level of frontal feathering), of wing = flattened chord, and of tail = central rectrices from tip to base.

GC 10695. Amytornis textilis textilis (Quoy & Gaimard). This specimen, catalogued as 'type', appears to be the primary subject of Quoy and Gaimard's descriptions of this species (Dumont 1824, Quoy & Gaimard 1824) and of Fig. 1, Pl. 23 of the zoological atlas of de Freycinet's *Voyage autour du monde*. It is evidently a (or the) specimen collected on that voyage and clearly was not lost at sea as had been presumed. In 1992 it was examined in MNHN by RS, who made the following notes: 'type 34: *Aunytis textilis* Dumont (as Q&G = Quoy and Gaimard, naturalists on the 'Uranie'). Female; Uranie: Australie: Oct? (as X) 1820. A tail-less female. MNHN mount & reg. no. 10695: wing 64 mm, tail -, bill -: ID correct; breast markings not strong; female correctly sexed.' Since its description it has lost its tail. A search of the MNHN collections in late 2011 failed to locate the specimen; thus we consider it mislaid.

GC 10696. Amytornis textilis textilis (Quoy & Gaimard). A mount showing loss of feathers and fading from long exposure. It is relatively pale above and below for textilis and shows little if any ventral streaking. Most rectrices are missing; the maxilla is long, pointed and hooked, and the mandible broken. Bill 13.3 × 3.7 mm (artefactually low), wing 62.9+ mm (not stretched), tail incomplete. On the socle is written: '10696. 19 C Expedition de Capitaine Baudin. An 11 [= 1802–03, see Discussion]. B 21 6? le Naturaliste par Mr Lesueur. Autytis textilis Q&G Australie. Trait Orn. (1831) p. 454 pl. 67 fig. 2, Bonaparte, Gould pl. 29.' This specimen, collected on the Expédition Baudin and a male by plumage, is almost certainly that quoted by Quoy and Gaimard as having a pointed and hooked bill (Dumont 1824, Quoy & Gaimard 1824).

GC 10697. Amytornis textilis textilis (Quoy & Gaimard). A mount with damaged plumage and detached legs. It resembles 10696 in tones, faded, with little evident ventral streaking; the bill is badly damaged. Bill ? × 3.7 mm (artefactually low), wing 63.7+ mm, tail 89.5 mm. On the socle is written (in a different hand from that on 10696): 'An 12 [=1803–04]. Exp. de decouvertes Australie Exp. Baudin. Amytis macrura (Gould). Monte par Mme Dufresne.' This specimen, which lacks rufous breast-side patches and is therefore male, could have been the darker specimen mentioned in Dumont (1824) and Quoy & Gaimard (1824) but it has faded badly from exposure over time. Collected on the Expédition Baudin, it would have been available to Quoy & Gaimard when describing Malurus textilis. Given the collectors, the attribution to Amytis macrura Gould, not described until 1847, is meaningless.

GC 10697A = CG 1879-714. Specimen not located.

GC 10697B = CG 1879-715. Amytornis modestus inexpectatus (Mathews, 1912). A mount in fair condition and showing slight rufous tones over the crown and upper dorsum. It is pale and unstreaked below; the bill is rather pointed, mandible profile straight and excessively closed, presumably damaged at its base. Bill 12.2×3.2 mm (artefactually low), wing 58.9 mm, tail 68.9 mm. The base of the socle bears 'S Australie Amytis striata (Gould) 1879. No 715 Cat. Gen. Musee de Sydney (sic). RG.' This male (rufous breast-side patches absent) is misidentified as A. striatus (Gould); its probable identity is assessed below (see Discussion).

CG 1879-716. Amytornis textlis myall (Mathews, 1916). A study skin in good condition, dark with moderate ventral streaking, orange-rufous breast-side patches (= female) and bilaterally compressed bill. Bill 13.2 × 5.8 mm, wing 62.1 mm, tail 72.1 mm. Female by plumage. Label data: 'Sp. 198 Amytis textilis. S. Austr.' Label 2: 'Amytis textilis CG 1879 No. 716, S. Australie'. Receipt of this specimen by MNHN is remarkable, as explained in the Discussion below.

CG 1897-489. Amytornis modestus modestus (North, 1902). A study skin in good condition, moderately dark above, almost unstreaked below, and bill bilaterally compressed. Bill 12.0 × 5.9 mm, wing 63.5 mm, tail 82.9 mm. Label data: '48 D female.' Label 2: 'Amytis textilis Australie central Expeditn Horn. Envoi du Musee de Melbourne. 1897-489'. Receipt of this specimen by MNHN, one of the 'lost' Horn Expedition specimens of Amytis modesta, is as remarkable as the preceding, as explained in the Discussion. It lacks bright breast-side patches and is therefore male.

Discussion

The accounts of the Mérion natté (*Malurus textilis*) in Dumont (1824) and Quoy & Gaimard (1824), described from material collected by early French expeditions, indicate that these were based on at least three specimens. Three specimens of this species, collected during those expeditions, have been located in MNHN within the last two decades: Gallery Catalogue nos. 10695, 10696 and 10697. The first is from de Freycinet's *Voyage autour du monde* (1817–20) and the other two from the Expédition Baudin (1801–04). Allowing for plumage fading, all appear to represent material upon which *Malurus textilis* Quoy & Gaimard was based and should therefore be treated as syntypes.

Yet there are inconsistencies. GC 10695, the specimen from de Freycinet's *Voyage autour du monde*, which is assumed to be the source of the description of *M. textilis* and its figure in the zoological atlas of the voyage (see above), is a female with bright rufous breast-side patches. Yet neither the original description of *textilis*, nor the parallel account of Quoy & Gaimard (1824), mention these distinctive patches; nor does the figure of *textilis* in the zoological atlas of de Freycinet's *Voyage* show it with convincing clarity. It may be that the patch was hidden under the bend of the wing and missed, as others have done (see discussion of GC 1897-489 below), or perhaps the bird figured and described was a lost male from the Freycinet *Voyage* or one of the specimens in male plumage from the Expédition Baudin. We may never know.

There are also questions concerning the provenance and dates of collection of the three syntypes. Although no locality is given in the catalogue entry or RS's notes for GC 10695, it is clear from the original description of *textilis* that it was taken at Shark Bay and on Péron Peninsula in particular (Mathews 1917). It would have been collected there during the fortnight *L'Uranie* spent at Shark Bay from 12 September 1818 (Whittell 1954) and not October 1820, which may relate more to the specimen's date of accession. Neither Expédition Baudin specimen carries a locality and the dates on them (An. 11 and An. 12) do not correspond with times when that expedition put into Shark Bay (23 June–4 September

1801 and 17–23 March 1803: Péron 1824, Cornell 1974). 'An. 11' and 'An. 12' date years in the calendar of the First French Republic, which began on 23 September 1792; thus 'An. 11' = 23 September 1802–22 September 1803, and 'An. 12' = 23 September 1803–22 September 1804. 'An. 11' and 'An, 12' are more likely to refer to later events, such as the dates when the collections were collated and packed, when they arrived in France or when catalogued at MNHN. Expédition Baudin collections reached France on the *Naturaliste* in June 1803 (An. 11) and on the *Geographe* in March 1804 (An. 12) (Péron 1824). Associated with the specimens bearing these dates, furthermore, are the respective names Lesueur for the first and Lesueur and Péron for the second. The names are almost certainly not those of the collectors but they correspond to the respective packers of vertebrate specimens for the voyage home of the *Naturaliste* from Port Jackson (Sydney) on 18 November 1802 (Lesueur alone, also An. 11) and of the *Geographe* from Mauritius on 15 December 1803 (both men, An. 12). Dates and packers indicate that the two Expédition Baudin specimens were collected on different occasions.

Although their exact site of collection cannot be pinpointed, the comment by Quoy & Gaimard (1824): 'Nous avons tué cet oiseau à la baie des Chiens-Marins, dans la Nouvelle-Hollande. Déjà les naturalistes de l'expédition du capitaine Baudin l'avoient fait connoître; mais il n'étoit point figure' indicates Shark Bay. Even more persuasive is evidence that landfalls of Expédition Baudin coincide with the known historic range of the species only there. The Expédition Baudin visited Shark Bay twice. On the first in 1801, the Geographe landed only on Bernier Island (Cornell 1974), where grasswrens are unknown, whereas the Naturaliste spent ten days off Dirk Hartog Island, whose grasswren population is now extinct, and a month off the Péron Peninsula, where grasswrens are, if anything, more abundant now (Brooker 2000, Black 2011a). On the second Shark Bay visit in 1803 Le Geographe's naturalists landed only on the Péron Peninsula (Péron 1824, Cornell 1974). It is probable therefore that the 'Lesueur An. 11' specimen was taken on the first visit by the zoologist Levillain, the only zoological collector then on the Naturaliste, probably from the Péron Peninsula sometime between 4 August and 3 September 1801, but still possibly from Dirk Hartog Island (Péron 1824). Lesueur himself probably collected the 'Péron & Lesueur An. 12' specimen on the second visit to the Péron Peninsula, where the Geographe anchored on 17-23 March 1803, as the remaining scientific members, including Péron, collected only marine animals there (Péron 1824). Thus we consider Shark Bay acceptable as the type locality for all three syntypes of Malurus textilis Quoy & Gaimard, thereby fixing the name to the Western Australian subspecies Amytornis textilis textilis.

GC 10696 is faded and its tail too damaged to measure. Annotations on the socle refer it to the description and figure in Lesson (1831), but it is male and Lesson's account refers only to material from de Freycinet's Voyage in *L'Uranie* and his figure shows the bright breast-side patches of a female. That figure could thus be of GC 10695 (for which Lesson's name was inserted into the catalogue) and the same bird figured on Pl. 23 in Quoy & Gaimard's (1824) atlas, in which the flank patches were overlooked.

GC 10697 B (CG 1879-715), the last of the mounts reviewed above, is misidentified as *Amytis striata* (Gould) (= *Amytornis striatus*, Striated Grasswren). It is a Thick-billed Grasswren *A. modestus* (North). Annotations on the socle suggest that it came from South Australia via the Australian Museum, Sydney, but entries in the Catalogue Général indicate that it was one of three grasswrens from the South Australian Museum, Adelaide (SAMA); the others were CG 1879-714 (*Amytornis striatus*, unlocated) and CG 1879-716 (*A. textilis*—see below). The date 1879 associated with these specimens is the year of their accession by MNHN. Originally intended to comprise one *A. striatus* and two *A. textilis*, they were, as shown by archival records in SAMA, part of a larger batch of natural history specimens sent

for show at the 1878 Paris Universal Exhibition. Most of this material passed to MNHN the following year (Hale 1956).

The provenance of the SAMA grasswrens is problematic. No precise localities are documented in records at SAMA or MNHN. Moreover, although both Thick-billed and Striated Grasswrens occur widely in South Australia, there is no published direct account of them from that state throughout the 19th century. Concerning GC 10697B (CG 1879-715), archives in SAMA record that the museum received from the widely travelled collector Samuel White (senior), a collection of skins in September 1870, stated incorrectly to be 'principally from north Queensland'. In fact, it included mostly species from inland southern Australia, among them three 'Amytis striata' (AB pers. data). Samuel White and his brother William undertook a prolonged collecting expedition through Queensland in 1867, returning via inland New South Wales and Victoria in 1868 (Linn 1989). By the late 19th century, both Thick-billed and Striated Grasswrens had been collected in inland New South Wales but not from other Australian states, and there was prevailing uncertainty about their identification and respective habitats (McAllan 1987). It appears that the misidentification of CG 1879-715 was made in SAMA before being sent to Paris; and it may well have been one of White's, presumably from New South Wales. Despite its age, this specimen is rather dark for A. modestus, and its appearance is therefore consistent with the extinct inland New South Wales subspecies, A. m. inexpectatus (Black 2011b).

CG 1879-716 is correctly identified as *A. textilis*. Its tail is of only moderate length, well below the range for females of *A. t. textilis* (Black 2011a) and this, together with other features of plumage and bill shape, indicates that it is of the subspecies *A. t. myall* (Mathews). Endemic to the north-eastern Eyre Peninsula and the eastern Gawler Ranges in South Australia, this population was not reported until 1902 (Chenery 1903, Morgan 1924), and not described until 1916 (Mathews 1916). The finding of a much earlier specimen is particularly noteworthy. SAMA records show that the collector F. W. Andrews presented to that museum at least five specimens of *Amytis textilis* (= *A. t. myall*) from the Gawler Ranges in 1871–73. None is now at SAMA, and their existence had been unknown until our search of SAMA records revealed that six or more specimens of *Amytornis textilis* (presumably *A. t. myall*) were exchanged with other museums in 1872–74. One that went to the Macleay Museum, University of Sydney, has since been identified as *A. t. myall* (AB pers. data).

CG 1897-489 'A. textilis', from the Horn Scientific Expedition to central Australia in 1894, is one of the two missing paler specimens 48C and 48D from that expedition, which North (1896), unaware of the sex-distinguishing value of bright breast-side patches, initially concluded must be the females of textilis. Parker (1972) observed that those two specimens were not present when North (1902) described the paler birds as a separate species, A. modestus, and had probably vanished earlier. Black (2011c) suggested that they had been badly damaged and were discarded, but this discovery provides a different explanation. Although sexed as a female, CG 1897-489 lacks bright breast-side patches and is therefore male. It is the oldest extant specimen of the extinct subspecies A. m. modestus, but it has no type status.

To sum up our findings for the Western Grasswren *A. textilis* (Quoy & Gaimard) itself, we lay out the resulting nomenclatural data to support its taxonomy in ornithological literature, as follows. The acronym GC = Gallery Catalogue: *Malurus textilis* Quoy & Gaimard *in* Dumont, 29 May 1824, *Dictionnaire des sciences naturelles* 30: 117–118—available by description, valid by seniority. Type data: syntypes MNHN GC10695 $\,^{\circ}$ ex *Expédition L'Uranie*, MNHN GC10696 $\,^{\circ}$ ex Expédition Baudin, and MNHN GC10697 $\,^{\circ}$ ex Expédition Baudin. Type locality (all syntypes): Shark Bay, Western Australia (as 'la baie des Chiensmarins dans la Nouvelle-Hollande').

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Addresses: Andrew Black, Ornithology Section, South Australian Museum, North Terrace, Adelaide SA, 5000, Australia, e-mail: abblack@bigpond.com. Richard Schodde, Australian National Wildlife Collection, CSIRO Ecosystem Sciences, G.P.O. Box 1700, Canberra, ACT 2601, Australia. Anne Préviato, Collections mammiferes et oiseaux, Muséum national d'Histoire naturelle, 55 rue Buffon, CP 51, 75005, Paris, France.